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Is the SERVQUAL Questionnaire
a Capable and Reliable Instrument for
Measuring Service Quality
In a Retail Supermarket Context?

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Abstract

During the last two decades, efforts have been made to understand the criteria and attributes customers use to evaluate service quality, by measuring the perceived service quality using the SERVQUAL instrument in various industries.

This dissertation evaluates the criteria and attributes customers use to evaluate service quality in a retail supermarket context, the connection between good perceived service quality with customer satisfaction and repeat patronage, and the capabilities and limitations of the three column format SERVQUAL instrument in measuring service quality in a retail supermarket context.

It concludes that the three column format SERVQUAL questionnaire is capable of identifying the service quality shortfalls by measuring the customers desired, adequate and perception of service quality. However, it raises the questions of validity and reliability of the questionnaire for measuring the service quality as a gap score between 'Desired' and 'Perceived' quality due to a psychometric problem; hence the identification of a requirement for a carefully modified single scale measurement to overcome it.

Finally, it acknowledges the possibilities of future research for developing a hybrid version (combination of Nordic and American perspectives) of a retail supermarket specific service quality measuring instrument using industry specific attributes.

Declaration

This work is original and has not been submitted previously for any academic purpose. All secondary sources are acknowledged.

Signed: _____

Date: _____

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Chapter One

1. Introduction

1.1 Background to the research

Providing a quality service to attract and retain customers has been recognised as a strategic requirement in highly competitive business environments (Parasuraman et al, 1985; Zeithaml et al, 1990). Organisations that deliver superior service quality achieve high growth in market share and increased profits (Buzzell and Gale, 1987).

In order to compete, supermarkets need to focus on areas which give them an advantage over their competitors (Porter, 2004). Therefore, if service quality is to be one of the strategies, there needs to be a way of measuring it. Parasuraman, Zeithaml, and Berry (1988) developed the SERVQUAL which is one of the most popular service quality measuring instruments. Therefore the SERVQUAL instrument was widely cited in the marketing literatures and widely used by managers (Dale, (1999); Grönroos, (2007); Zeithaml and Bitner and, (2000).

However, there are some concerns about measuring the service quality as a gap score between the 'Desired' and 'Perceived' quality and the construct of the five dimensions (Reliability, Responsiveness, Empathy, Assurance and Tangibles) which made up the SERVQUAL questionnaire (Brown, Churchill and Peter (1993).

1.2 Research question

Is the SERVQUAL questionnaire a capable and reliable instrument for measuring Service Quality in a retail supermarket context?

- Aims:
 - To understand the contemporary thinking of service quality
 - To measure and analyse the customers' desired, adequate and perception of service quality in a retail supermarket context
 - To discover and analyse whether there is any positive correlations between service quality, customer satisfaction and repeat patronage
 - To discover and analyse the capabilities and limitations of the SERVQUAL questionnaire for measuring service quality in a retail super market context

1.3 Justification for the research

During the past two decades, numerous researches have been carried out pertaining to service quality in different industries. However, the literature on service quality is not yet rich enough to provide a specific knowledge of the service quality in retail supermarket context. The researcher as an employee with a service of considerable length at the Chester branch of the supermarket takes this opportunity to partially fill this vacuum by selecting the work place as a case study. Therefore, this research provides specific knowledge about the service quality attributes and the criteria customers use to evaluate the service quality in supermarket context.

As competition between the retail supermarkets continues to increase, understanding the customers' perception of service quality will be an advantage. Therefore this research will lead to an understanding of how the service quality could be used as a strategic tool.

The SERVQUAL questionnaire has been used to measure service quality and is regarded as the most popular and standard measuring instrument for measuring service quality in any industry context in its original form or with some amendments to the instrument. However, the validity and reliability of measuring the service quality as a gap score between the desired and perceived service has been questioned by Cronin and Taylor (1992) and Teas (1993).

Though the questionnaires in general have many advantages over the qualitative methods, the reliability and the validity which depends on the content and the construct are crucial to any questionnaire (Saunders et al, 2007; Sekaran, 2003). For this reason, it is worthwhile to investigate the validity and reliability of the SERVQUAL questionnaire for measuring the service quality in a retail supermarket context.

Therefore, while measuring the service quality in a retail supermarket store this research provides an opportunity to investigate the validity and reliability of the SERVQUAL instrument. This will enable to understand the service quality attributes that customers used to evaluate the service quality in a retail supermarket context and requirements that should exist within a valid and reliable service quality measuring instrument.

1.4 Methodology

The SERVQUAL (Parasuraman et al, 1988) and the SERVPERF (Cronin and Taylor, 1992) questionnaires have been widely used for measuring service quality in many research studies (Teas, 1993). However, measurement of service quality has been dominated by the use of the SERVQUAL questionnaire (Brady, Cronin and Brand, 2001). One of the aims of this research is to test the reliability and validity of the SERVQUAL questionnaire by analysing the findings statistically using a Statistical analytical program to align with well recognised previous researches (Babakus and Boller, 1992; Parasuraman et al 1988). A positivist philosophical stance with a deductive approach has been taken due to the nature of the research and after the evaluation of the advantages of the quantitative methods.

1.5 Outline of the chapters

Chapter one introduces the background to the research, the research problems and indicates how these are intended to be solved and hence introduces the research question and aims.

Chapter Two reviews the literature to understand the contemporary thinking of service quality, its theoretical background and practical advantages to the organisations and the possible relationship of service quality with customer satisfaction and repeat patronage.

Furthermore, it reviews major service quality models evolved during the past two decades and the SERVQUAL instrument and problems around it.

Chapter Three is about the Methodology and discusses the principles and methods of the research. Furthermore, it will discuss how the questionnaire was developed, how the sample was selected and supported theoretical underpinnings of it and the ethical considerations taken into account during the entire process.

Chapter Four is about the findings of the research. This chapter will present the findings of the research in relation to the research question and aims.

Chapter five is about the conclusion and the implications to the research question and aims in relation to the literature review and the findings of the research.

1.6 Definitions

- SERVQUAL – An instrument devised by Parasuraman et al (1988) to measure the service quality based on the gaps between customers' perceptions and expectations of perceived service quality
- DISCONFIRMATION PARADIGM – Disconfirmation paradigm indicates the size and the direction of a person's initial expectations in relation to the experience received.
- CENTRAL LIMIT THEOREM – Mean value of a sample size of 30 or more is usually very close to a mean value of a larger sample.

1.7 Summary

This chapter discussed the background to the research and introduces the research question and the aims of the research. It briefly introduced the rest of the chapters and the contents of the dissertation. The next chapter will review the literature in relation to the service quality, customer satisfaction and the SERVQUAL instrument.

Chapter Two

2. Literature review

2.1 Introduction

This chapter discusses what service quality means from different academic points of view, why it is important for organisations to understand service quality, how customers evaluate it and the linkage between high perceived service quality and customer satisfaction.

Furthermore, it also discusses why service quality needs to be measured to understand the customers' expectations and perceptions in order to gain numerous advantages. In addition to that, it discusses service quality conceptual models and issues around those models.

Finally, this chapter will lead to an understanding of how service quality measurement instruments evolve, specially the SERVQUAL instrument; and why there are some concerns about measuring service quality using the SERVQUAL instrument.

2.2 Service Quality

Most of the products available in the market are made up of a combination of tangible goods and intangible services. In some businesses, service is the essential part of business activity; in other businesses, service is simply supporting the tangible goods (Dale 1999).

Zeithaml and Bitner (2000) identify the services as deeds, processes and performances. Therefore, services have their own intrinsic qualities which distinguish them from goods. Parasuraman, Zeithaml and Berry (1988) emphasise that knowledge about goods quality is insufficient to understand service quality due to three intrinsic characteristics of services namely *intangibility*, *heterogeneity*, and *inseparability*.

Parasuraman et al (1988) further explain that services are performances or experiences and therefore intangible. The personal qualities of service providers often lead to variable levels of services and therefore heterogeneity. Quality in services mostly occurs during the service delivery and therefore services are inseparable from production and consumption. Zeithaml and Bitner (2000) introduce *Perishability* to the list by arguing that services cannot be saved, stored, resold or returned.

Berry and Parasuraman (1991) emphasise that in a service business the four Ps marketing strategy (Product, Place, Promotion and Price) have no use without a Q (for quality).

In the total quality management literature, Deming (1998) and Crosby (1980) emphasise the advantage of quality in two different ways. Deming (1998) advocates that organisations need to create consistency of purpose towards improvement of products and services with an emphasis on improvement in quality to become competitive, stay in business and provide jobs. Deming (1998) argues that quality pays off in the forms of increased profit and reduced cost.

Conversely, Crosby (1980) states that 'quality is free' by arguing that the benefits of supplying quality products and services pay off in the form of business profits which are worth more than the money spent on quality improvement programmes. However (Dale 1999) suggests that quality is not the competitive weapon it once was as it is now expected as a given requirement of any product or service.

Bearden and Teel (1983); Buzzell and Gale (1987) found a positive relationship existing between high-perceived service quality and customer satisfaction. The positive relationship between perceived service quality and customer satisfaction creates true customers, increases efficiency and benefit from increased market share and profit, heavy sales volume, higher revenue and reduces costs by economies of scale, (Anderson and Sullivan, 1993; Zeithaml, Parasuraman and Berry, 1996).

Satisfied customers do not switch their service providers and therefore costs of retaining existing customers are significantly lower than attracting new customers.

These customers spread their satisfaction by positive word of mouth which influences non-existent customers' desires to engage with the organisation and work as free promotional agents (Grönroos 2007, Zeithaml and Bitner, 2000).

Low-perceived service quality leads to loss of sales and profits as customers switch to competitors (Ghobadian and Speller, 1994; Zeithaml *et al*, 1996; Yang, 2003). This dissatisfaction is spread by negative word of mouth resulting in loss of sales and profits (Kumar and George, 2007). This research also examines whether this relationship of high perceived service quality and loyalty exist within the retail supermarket context.

Conversely, domestic and global competition forces organisations to look into new ways to create and sustain competitive advantage (Porter, 1998). The *performance* is the most important competitive weapon in service organisations that could distinguish one organisation from another, as an organisation can differentiate itself by satisfying customers' needs better than its competitors (Zeithaml et al ,1990; Porter,1998).

During the last two decades, academics (Grönroos, 1984; Parasuraman, Zeithaml and Berry, 1985; Cronin and Taylor, 1992; Teas, 1993) have examined the key attributes of service quality, and how to measure them and stressed that for any organisation to compete successfully it needs to understand the customers' expectations and perceptions of service quality as this influences the customers' choice of service provider, satisfaction and loyalty.

2.3 Service Quality theory

Service quality is defined as the result of the comparison that customers make between *expectations* about a service and *perception* of the way the service was delivered (Lehtinen and Lehtinen 1982; Grönroos 1984; Parasuraman, Zeithaml & Berry1985).

Brady and Cronin (2001) identified that the foundation of service quality theory has some connection with the product quality and customer satisfaction literature based on the *disconfirmation paradigm* identified in physical goods literature (Cardozo 1965, Churchill and Surprenant 1982; cited by Brady and Cronin, 2001).

The disconfirmation paradigm indicates the size and direction of a person's initial expectations in relation to the experience received (Churchill and Surprenant 1982; cited by Parasuraman et al, 1985). Therefore the disconfirmation is the size of the gap between prior expectation and the actual performance received. Directions are; positive, negative and zero disconfirmations. When a service is performed better than expectation, a positive disconfirmation occurs resulting in satisfaction and when a service is below the expectation a negative disconfirmation occurs resulting in dissatisfaction. When a service is performed as expected zero disconfirmation occurs (Churchill Surprenant, 1982; cited by Parasuraman et al 1985).

By building on this theory, Grönroos (1982) states that customers' compare the service they expect with the perception of service they receive when evaluating the service quality (Parasuraman et al 1985). In an exploratory research of service quality Parasuraman et al (1985) state that a perceived service quality is the result of a comparison between what consumers consider the service should be and their perceptions about the actual performance delivered by the service provider. Parasuraman et al (1988) defined *perception* as customers' beliefs concerning the service received and the *expectation* as desires or wants of customers perceived.

2.4 Development of Service Quality Models

Understanding the key ingredients of service quality and the best way to measure and fulfil it is a keenly debated area in service marketing and as a result there are some 'service quality models' especially the 'Perceived service quality model' (Grönroos 1984) and the 'Gaps model' (Parasuraman 1985) which have emerged and evolved within the past two decades.

2.4.1 Grönroos (1984) Perceived service quality Model

According to Grönroos (1984), the service quality experienced by a customer has two dimensions; namely *technical* quality and *functional* quality. Functional quality describes *how* the service is delivered and technical quality describes *what* the customers received during a service delivery.

The organisation's image works as a filter and can thus positively or negatively modify the customers' perception of service quality. Grönroos (2007) acknowledged that the model was intended to offer a conceptual framework to understand the features of service and is not a measurement model.

Grönroos (2001) identifies a list of determinants of good service quality and argues that the list needs to be short but comprehensive for it to be useful for managerial purposes. By expanding the argument, Grönroos (2007) emphasises that the following 'seven criteria of good perceived service quality' (Appendix-Exhibit 1) are the determinants that need to be considered when evaluating the service quality of any organisation.

1. Professionalism and Skills
2. Attitudes and Behaviour
3. Accessibility and Flexibility
4. Reliability and Trustworthiness
5. Service Recovery
6. Serviscape
7. Reputation and Credibility

However the above 'seven criteria of good service quality' concepts have very similar characteristics to the Parasuraman et al (1985) 'Ten Determinants of service quality' (Appendix – Exhibit 2) which identified from a series of focus group discussions.

2.4.2 Parasuraman et al (1985) Gaps Model (Base of the SERVQUAL)

Parasuraman et al (1985) view perceived service quality as a gap between the customers' perception of the received service quality and the customers' expected level of service quality (Service quality = Perception – Expectation).

The central focus of the Gaps model is the 'customer gap'. (Zeithaml and Bitner, 2000) and Parasuraman et al (1988) have devised an instrument known as the SERVQUAL instrument (a questionnaire) to measure it.

The instrument consists of twenty two questions of twenty two attributes (Appendix – Exhibit 3) to measure the customer gap or gap between the customers’ expected and the perceived service which was later reduced to 21 questions.

Parasuraman et al (1988) cited that the nature of the characteristics customers use to evaluate the quality of goods is different when they evaluate the expected service and perceived service quality and stress the necessity of identifying the characteristics that represent the evaluative criteria customers use to assess service quality.

Therefore in earlier research Parasuraman et al (1985) identified 10 characteristics (determinants) which customers used to evaluate service quality based on a series of focus group sessions. Later Parasuraman et al (1988) reduced the ten determinants into five specific dimensions (Table 1) after discovering that there was a considerable correlation among the original ten determinants. Parasuraman et al (1990) claimed that those five are distinct dimensions of service quality which the SERVQUAL instrument is based on.

- | |
|--|
| <ol style="list-style-type: none">1. Reliability – ability to perform service dependably and accurately2. Responsiveness – willingness to help and respond to customer needs3. Empathy – the extent to which caring and individualised service is given4. Assurance – ability of staff to inspire confidence and trust5. Tangibles – physical facilities, equipment, staff appearance, etc |
|--|

Table 1: Five dimension of service quality

Berry and Parasuraman (1991) have found that reliability has repeatedly emerged as the most critical dimension when measuring the relative importance of the five dimensions using the SERVQUAL questionnaire in ten studies and claim that the ‘Reliability’ dimension is the essence of service quality or the very core of service marketing excellence. However, there are some concerns for this claim. (Babakus and Boller, 1992) argue that the most critical dimension and the number of dimensions are dependent on the industry in which service quality is being measured. This study is also to test whether this is true or false in a super market context.

2.5 The SERVQUAL Instrument (questionnaire)

The SERVQUAL instrument has been widely used in measuring service quality in many research studies (Babakus and Mangold, 1992; Carman, 1990; Cronin and Taylor, 1992; as cited by Parasuraman et al, 1993). According to Brown, Churchill and Peter (1993) also the SERVQUAL is the most popular measure of service quality, which involves the calculation of the difference between expectations and perceptions on a number of specified determinants. After an evaluation of four alternative service quality models Brady and Cronin (2001) state that the SERVQUAL instrument appears to be distinct from the others as it uses one or more determinants to measure the service quality.

Parasuraman et al (1994b), acknowledged that the SERVQUAL instrument has been used productively and widely for measuring service quality in many published studies examining service quality in a variety of contexts, including Banking, Pest control, Dry cleaning and Fast food (Cronin and Taylor 1992); A Gas and Electricity Company (Babakus and Boller 1992); Discount and Department Stores (Finn and Lamb 1991; Teas 1993).

Taylor and Miyazaki (1995) argue that some measure of perceived performance is important in assessing service quality; but it is difficult to obtain accurate data especially for services where the customers are unable to evaluate the key attributes of the service. Another argument concerns the difficulties of measuring service quality because it is inherently subjective, due to its *Intangibility*, *Heterogeneity*, *Inseparability* (Parasuraman et al 1985) and *Perishability* (Zeithaml and Bitner 2000). However Deming (1998) argues that *accuracy*, *speed*, *dependability* and *care in handling* are important characteristics of service quality and are as easy to quantify and to measure as the quality of manufactured products.

Criticisms

Grönroos, (1990); Mangold and Babakus, (1991); Richard and Allaway, (1993) criticise the SERVQUAL instrument stating that it mainly focuses on the service delivery process.

Using only functional quality attributes to explain or predict consumers' behaviour might be a misjudgement of service quality as it does not represent all the service quality attributes of a service encounter and therefore has low predictive validity (Grönroos 2001, Babakus and Boller, 1992; Carman, 1990; Cronin and Taylor, 1992).

Cronin and Taylor (1992) and Teas (1993) questioned the effectiveness of SERVQUAL in evaluating service quality and criticised the measurement of service quality through the SERVQUAL questionnaire. However, Parasuraman et al (1994) claim that diagnostic ability is the major practical benefit of the SERVQUAL model, as the purpose of measuring service quality is to diagnose the service shortfalls which need attention or actions.

Parasuraman et al, (1988) state that the five dimensions which make up the SERVQUAL questionnaire are distinct dimensions and categorised the 21 questions in to those five dimensions. Therefore each question of 21 questions of the SERVQUAL questionnaire belongs to one distinct dimension. Bagozzi (1981) emphasises that according to the *convergence and discrimination rule* 'items representing a distinct dimension should correlate highly with each other in a uniform pattern, and should not correlate as strongly with items representing another dimension' (Babakus and Boller, 1992:258). Therefore this research also tests whether the SERVQUAL five dimensions support the above rules.

Caruana, Ewing and Ramaseshan (2000) argue that on the SERVQUAL 9 point scale, respondents mark their desired service quality level nearer to the high end and adequate service quality level nearer to the low end of the scale. Then they tend to mark the perception of service quality in between the desired and adequate level though it is possible to mark a number below the adequate level. This makes a variance restriction which limits the full use of the 9 point scale.

Cronbach and Furby (1970) cited by Babakus and Boller (1992) argue that when respondents are asked to rate their desired and existing level at same time some psychological constraints occur. By building on the above argument, Brown, Churchill and Peter (1993) argue that when respondents are asked to rate their desired and perception (two different scores) level on a particular attribute, respondents tend to rate the desired level higher than their perceptions due to the above psychometric problem.

The SERVQUAL questionnaire is also based on measuring the desired and perception level of 21 attributes (SERVQUAL score = Expectation – Perception) and therefore this research also tests whether the alleged psychometric problem is present in the SERVQUAL instrument.

In essence, the SERVQUAL questionnaire is the most widely used and debated service quality measuring instrument evolved during the past two decades.

2.6 Summary

This chapter discussed the nature of service quality and identified it as the customers' comparisons of what is expected and what is delivered from a service provider and how the organisations could benefit in numerous ways by providing a good service quality.

The chapter identified the different service quality models and their advantages and disadvantages. Grönroos (1984) laid the foundation for a greater understanding and debate of service quality by introducing the 'perceived service quality model'. Later Parasuraman et al (1985) introduced a new model known as the 'Gaps model' and a service quality measuring instrument known as the 'SERVQUAL' (Parasuraman 1988). As a result, academics divided into two schools of thought either; *Nordic* or *American* (Kang and James, 2004). However, both the Nordic and the American perspectives agree on the difficulty of measuring service quality due to four intrinsic characteristics of service itself.

Finally, it discussed why it is necessary to identify the validity and the reliability of the SERVQUAL questionnaire to measure the service quality and the rationale behind it.

The next chapter will discuss the methodology that the researcher adopted to answer the research question and aims and the theoretical underpinning of it.

3. Chapter Three

3. Methodology

3.1 Introduction

This chapter will analyse the principles and procedures used to answer the research questions and the justification for the selected methodology and why the other methods have been rejected, based on the research questions and the literature review. This will then lead to a discussion of research design which details the construction of the survey questionnaire used. It will further discuss how the ethical considerations were taken in to account. Finally, the chapter ends with a discussion about the research procedure, the process and how the results were analysed.

3.2 Methodological considerations

3.2.1 The research philosophy

Saunders, Lewis and Thornhill, (2007) emphasise that the research philosophy influences the way in which the researcher views the world and underpins the research strategy.

However, within the social science field there is an ongoing debate to decide the most appropriate philosophical stance from one extreme end of positivism to the other extreme end of interpretivism (Smith, Thorpe and Lowe, 1991).

In the positivist stance, emphasis is on quantifiable observations that lend themselves to statistical analysis whereas in the interpretivism stance, emphasis is on qualitative observations by which researchers make sense of the social world as humans (Saunders et al, 2007).

Positivism considers that properties of the externally existing social world should be measured through objective methods without being subjectively attached through sensation, reflection or intuition (Smith, Thorpe and Jackson, 2008).

Smith et al (2008) further expand the argument by explaining eight qualities of positivism stressing that choice of *what* and *how* to study should not be determined by human beliefs and interests, and the aim should be to identify the causal explanations by enabling facts to be measured quantitatively.

Quantitative approaches are much more rigorous than the qualitative research as qualitative approaches inherit the lack of ability to generalise and lack of ability to repeat the same procedures to test the commonality of the findings (Sekaran 2003).

The SERVQUAL questionnaire has been used to measure the service quality in other industries by well recognised researchers (Babakus and Boller (1992), Teas 1993, Carman 1990, Cronin and Taylor, 1992) due to its ability to follow the rigorous procedures to generalise the findings through statistical analysis and the ability to repeat the same procedures to test the commonality or the agreements of the findings.

The aims of this study are twofold.

1. To identify the factors of service quality in a retail supermarket context.
2. To evaluate the SERVQUAL questionnaire for its reliability and the validity of the contents and the construct

Hence the objectives are measures driven and the SERVQUAL questionnaire is deployed as the survey instrument of the data collecting method with a positivist philosophical stance.

3.2.2 Research Approach

The research approach is usually based on the research philosophy where the *deduction* approach is usually based on positivism and the *induction* approach is usually based on interpretivism (Saunders et al, 2007).

The philosophical stance of this research is a positivist stance hence the deductive approach was taken to represent the findings and conclusions.

Saunders et al (2007) identify two important characteristics of the deduction process. Firstly it indicates precisely how the concepts or the variables are to be measured. Secondly it deduce hypotheses to explain the causal relationship of variables in the light of theory by collecting the quantitative data and analysing them statistically.

3.2.3 Research Strategy

This study uses the SERVQUAL questionnaire to collect the quantitative data and analyse the findings quantitatively using a computerised analytical programme with a deductive approach. This is because one of the aims of this study is to evaluate the SERVQUAL questionnaire for its reliability and validity using a statistical analytical procedure specially designed for the purpose.

According to Saunders et al (2007) the choice of the strategy is dependent on the aims and the objectives of the study, time and resources available, philosophical underpinnings and approach. The survey strategy is commonly associated with the deductive approach and allows for collecting quantitative data which can be analysed quantitatively using descriptive and inferential statistics.

3.3 Research Design

3.3.1 Construction of the instrument

Parasuraman et al (1988) designed and used the original SERVQUAL questionnaire to measure the service quality in a broader service setting (i.e. Insurance broker, Pest Control, dry cleaning) and was not specific to a single industry.

Parasuraman et al (1993) advocate that it is possible to construct the SERVQUAL attributes to suit the industry when necessary, stating that the SERVQUAL items are the basic 'skeleton' underlying service quality and those can be supplemented with industry specific items when necessary. Grönroos (2007) also acknowledges that the determinants and attributes of the SERVQUAL instrument should be reassessed, customised and applied carefully in any industrial context when measuring the perceived service quality.

This process facilitated the identification of the industry- specific service quality attributes, language and wording from a wider demography of customers. Sekaran (2003) emphasises that respondents should understand the language of the questionnaire and this depends on their educational level, the usage of terms and cultural idioms.

Therefore, in order to measure the service quality in a retail supermarket setting, some of the questions of section one of the original SERVQUAL questionnaire were replaced by using intrinsic attributes and wordings related to a retail supermarket context. This was achieved by an email and a face to face request to twenty selected respondents at the pilot study stage (Appendix 6).

3.4 Research Procedures

3.4.1 Pilot Study

The pilot questionnaire was tested for appropriate wording and to check whether it was meaningful to the respondents, whether the questions asked are appropriate for highlighting the service quality attributes, and whether there was a smooth sequence of the questions from start to finish (Sekaran 2003).

Saunders et al (2007) also argue that questionnaire needed to be tested, in order to refine the difficulties of answering the questionnaire, recording data, and assess the questions validity and reliability and to ensure that the data collected could answer the research questions.

Smith, Thorpe and Lowe (1991) emphasise that this is the most important stage in which to check whether the data produced could be analysed and to check whether the findings appear to make any sense.

The pilot questionnaire was administered to five selected customers and five cashiers to check whether the questions appear logical and accurately measure the service quality in a retail supermarket context.

Testing was carried out for the reliability of the questionnaire, for its consistency to ensure that the respondents interpret the questions the same way as intended. The tested respondents however, raised their concerns about the significant length of the questionnaire and the ability of an average customer to understand the process, especially how to score on 3 side by side 9-point scales, how to divide 100 points correctly among five dimensions on the alternative form of section (v) of the questionnaire).

Modifications were carried out as required. However, care was taken to maintain the original SERVQUAL format as one of the aims was to assess the questionnaire for its validity of content and construct (Saunders et al 2007).

3.4.2 Time Horizons

A cross-sectional study or a snapshot (Saunders et al 2007) of the customers leaving the store during the second week of March has been considered as the viable option. Refined and tested final questionnaires were distributed (Monday and Friday) by the main exit door.

This month and days were selected respecting a request to the store management to avoid the extremely busy and extremely quiet time periods. Saunders et al (2007) also stress the necessity of this selection to capture a balanced response.

3.5 Research Context

3.5.1 Gaining Access

Saunders et al (2007) identify that gaining access to appropriate sources is a problematic process and advocate some strategies to overcome these problems. Therefore the following strategies (Saunders et al 2007) were carried out in order to gain access and permission for the survey. The researcher is an internal employee who has direct contact with the respondents; approaching respondents within the business premises and requesting them to rate the store performance were identified as possible concerns (Saunders et al 2007) for the organisation.

The store manager was approached and clearly explained the purpose and type of access required. Furthermore, possible benefits to the organisation were highlighted by explaining how the findings could be used to identify the underperforming areas. Organisational concerns of approaching the customers within the premises which could disturb their shopping was addressed by indicating that customers were not to be disturbed while they were shopping as questionnaires were intended to be distributed at the main exit door. The other concern of requesting customers to rate the store performance was addressed by explaining the benefits of knowing the customers' expectations and perceptions.

In addition to the verbal explanations a written request was made (Appendix: 7). Permission was granted verbally and a request was made to submit a report of the findings.

3.5.2 Identifying the Sample size

Saunders et al (2007) emphasise that collecting the data from a sample which represents the entire population is a valid alternative when there are constraints on time, the budget and it is impracticable to survey the entire population for the research.

Saunders et al (2007) further explain the term '*Normal distribution of the data*' which ensures the validity and reliability of the data, stating that the larger the absolute size of sample, the closer it is to the normal distribution. This relationship, known as the *central limit theorem* occurs even when the population is not normally distributed. Therefore, mean values of sample size of 30 or more is usually very close to the mean values of a larger sample (Stutely's (2003); cited by Saunders et al (2007:211);

Roscoe (1975); cited by Sekaran (2003:295); and Fisher (2007) advise, as rule of thumb a minimum sample size of 30 is acceptable for statistical analysis. The strategy of this research is also to collect the quantifiable data for statistical analysis of the service quality and the SERVQUAL questionnaire and therefore a sample of 50 respondents was viewed as adequate and appropriate.

3.5.3 Identifying the Sampling Technique

Systematic sampling was selected for this research as systematic random sampling allows selecting a fraction of samples systematically over a specified time period (Bradley, 1999; cited by Saunders et al, 2007:220).

Therefore (1/100 of 5000) 50 customers who leave the store main exit every ten minutes over two days were selected to receive the questionnaires as it allows to select a fraction of the sample systematically over a specified time period.

Saunders et al (2007) argue that systematic random sampling allow the probability of generalising the findings to the population from which the sample was selected.

3.5.4 Non Response bias

50 questionnaires were distributed and 37 returned. Therefore the non response rate was 26%. Saunders et al (2007) identify that a respondent's refusal to become involved in research and refusal to answer all questions as the most common reason for non-response to occur.

Sekaran (2003) argues that by convincing the respondents that the data would be treated with the highest confidentiality could reduce the non-response rate to a minimum. Therefore a covering letter (Appendix – Exhibit 8) was attached to the questionnaire ensuring anonymity, guaranteeing confidentiality and explaining the educational purpose of the research. Smith et al (2008) support this method stressing both the ethical importance of confidentiality and anonymity and the usefulness of the incentives to increase the willingness to participate and hence reduce the refusal to respond. A Tesco gift card worth £50 was offered for a correctly filled in and returned questionnaire to encourage the prompt return and to reduce the non-response rate.

3.5.5 Response Rate

A total of fifty questionnaires were distributed and thirty seven questionnaires were returned. Thirty four questionnaires were returned on time and three were late. The thirty four on time returned questionnaires were carefully examined for completeness. Two questionnaires were rejected due to in accuracy and incompleteness. Therefore the total number of usable responses was thirty two questionnaires (64%).

Saunders et al (2007) suggest that an average response rate of 30-40% is a reasonable rate for a delivered and collected method. Factors such as a covering letter ensuring anonymity, a £50 incentive could have been influenced the result. Furthermore though care has been taken not to introduce any bias during the process, the goodwill and educational purpose may have influenced some

respondents' bias towards the researcher which could have contributed to increase the response rate.

This issue was identified in the research design stage as it may conflict with the philosophical stance because the researcher needs to be independent from research subjects (Saunders et al, 2007). However, an ethical consideration is that respondents need to be informed of the true nature of the research. Furthermore, this could positively contribute to the research as respondents took extra effort to fill in the questionnaires correctly, precisely and post them promptly.

3.5.6 Rejected Methods

Saunders (2007) identifies that qualitative methods such as interviews, focus group discussions and similar methods are more suitable for examining highly subjective attitudes and behavioural researches which will enable the collection of a rich and detailed set of data.

Nevertheless these methods were rejected due to the difficulties of gaining access to the customers who would have had to agree to spend at least an hour for a discussion and finding a time and a place that suited every respondent who was willing to participate. Budget and time constraints also made it difficult to find a suitable place to facilitate a neutral and convenient gathering. Saunders et al (2007) emphasise the requirement of a neutral place for respondents to freely discuss their ideas without any fear.

Furthermore, when evaluating the rigour and robustness of the questionnaires, their ability to produce consistent findings at different times and under different conditions (Saunders et al 2007) were taken in to account. The SERVQUAL questionnaire has been used to measure the service quality in different industries by well known researchers (Parasuraman et al 1990) and it allows for testing the commonality with those researches.

Apart from that, one of the aims of this research was to identify the validity and reliability of the SERVQUAL questionnaire from a positivist stance. Therefore the SERVQUAL questionnaire used as the method of collecting the findings and

statistical analysis used in previous studies used to evaluate those findings to test the commonality.

Hence interviews, focus groups discussions and similar qualitative methods had to be rejected. However there was a possibility of using one of the above qualitative methods for triangulation of the findings. Due to budget and time constraints and the lack of time to learn the extra skills, triangulation was excluded.

3.6 Validity

Validity is concerned about the accuracy of the data collected. Therefore a valid questionnaire will enable accurate data to be collected (Saunders et al, 2007). Validity is present in two forms namely internal validity and external validity which both concerned the relationship of findings with the true nature (accuracy) of those findings (Saunders et al, 2007).

3.6.1 Internal validity

Saunders et al (2007) define the internal validity in relation to the questionnaires as the ability of the questionnaire to measure what it intends to measure by referring to 3 specific criteria, researchers often use to ensure internal validity. These are; Content validity, Predictive validity and Construct validity.

Content validity is an assessment to determine whether the questionnaire provides adequate coverage of the survey and to determine the extent of the necessity and usefulness of the questions. Predictive validity is the ability of the questions to provide the data to make accurate predictions through statistical analysis. Construct validity is concerned about whether the questions are capable of measuring the construct that they are intended to measure (Saunders et al, 2007).

Therefore, content validity was assessed to determine whether the questions are capable of measuring the service quality in a supermarket context and new questions (i.e. cleanliness of store, product availability) were introduced.

Predictive validity is also assessed to determine whether findings could be coded and entered in an SPSS statistical program to generate data. However, the capability of those data to make accurate predictions and construct validity of the questionnaire will be evaluated at the findings and conclusion stage, as one of the aims of this research.

3.6.2 External validity

External validity is concerned with whether it is possible to generalise the research findings in relation to the research design.

This research sample was designed on the statistical probability of the population being based on the *central limit theorem* (Saunders et al, 2007) as identified earlier and therefore has a wider applicability beyond the sample size for generalisation.

Saunders et al (2007) emphasise that, though the findings of the research have a wider applicability beyond the population of the sample selected, researchers should not generalise the findings beyond the sampling frame. Therefore though findings of this research have a wider applicability beyond the sample population, the researcher does not claim a generalisation beyond the sample population. However, this research has the reliability of replicating and producing consistent findings at different times and under different conditions (Saunders et al 2007) which needs to be taken in to account.

3.7 Reliability

Reliability is concerned with whether the procedures of data collection and analysis will generate the same results on other occasions or will other observers make similar observations and arrive at the same conclusions from the raw data? (Easterby-Smith et al (2002); cited by Saunders et al 2007:149).

Robson, (2002); cited by Saunders et al (2007:149) has emphasised that there are four threats to reliability; namely participant error, participants bias, observer error and observer bias.

According to Saunders et al (2007) participant errors mostly occur as respondents' answers change according to the time and the day they answer questions. A participant who answers a particular question in an early morning may give a different answer in the evening (i.e. due to busyness, tiredness). However, participants were not asked to fill in the questionnaire on the shop floor due to the considerable length of the questionnaire. Therefore, they were asked to take the questionnaire with them and post it at a later date. Hence participant error has been minimised as they could fill in the questionnaire at a desired day, time and a place. Participants' bias may occur when participants can be identified individually as they tend to give more socially desirable answers. Therefore this has been addressed by ensuring their anonymity. Observer error and bias may occur due to the way of asking questions, and the way of interpreting the answers. As the researcher is aware of these biases care has been taken to avoid them.

3.8 Ethical considerations

Saunders et al, (2007) state that the general ethical issues arise during the five stages of a research process. These could arise during the formulation and clarification of the research topic, research design stage and gaining access, during collecting data, during processing and storing data and during analysing and reporting findings.

Therefore these stages were addressed accordingly and collectively. The quality and usefulness of the research to the sponsors was taken into account and hence efforts were taken to maintain the quality of the research and it was agreed to provide a report of the findings to the store manager. The participants' right to be fully informed, the participants' right to privacy, the participants' right to informed consent, the right to withdraw, confidentiality and anonymity, and the organisation's right to confidentiality and anonymity were addressed individually.

A covering letter was attached to the questionnaire ensuring participants anonymity and confidentiality. Therefore participants were informed that they will not be identified individually and details used for the purpose of this research will be regarded as highly confidential.

Smith et al (1991) stressed that it is an ethical responsibility of the researcher to protect the confidentiality of the details and identity of individual participants.

The potential of being intrusive and provoking anxiety and stress to the respondents (Saunders et al, 2007) were taken in to the account due to the length and some of the sensitive questions (section 3) of the questionnaire. Therefore privacy of the participants was maintained by inquiring of their willingness to participate and letting them voluntarily fill in and return the questionnaires and acknowledging their right to withdraw partly or completely from the process.

The participant's right as an individual to the processing and storing of their data was taken in to account and therefore participants cannot be identified as an individual from the questionnaire which they have answered. Care was taken to maintain the confidentiality of the personal data provided for the survey and the £50 gift card raffle. These details were not stored by any means and destroyed just after the raffle. The organisation right to confidentiality and anonymity during analysing and reporting the findings were acknowledged and the organisation has not been identified

The researcher is an insider of the organisation with close contacts to the customers who are the respondents of the research. This advantage of being an insider has been used positively to contribute to the research for gaining access and to conduct the pilot study using the existing contacts with the respondents and the management.

There was minimal interference (Sekaran 2003) other than delivering the questionnaires to the respondents in the final survey. Care and best practice have been followed to ensure the validity and reliability of the research and not to contaminate the questionnaires or the findings.

3.9 Key Limitations of the Research

The SERVQUAL questionnaire contains very structured and closed questions. Therefore, it will generate the answers which are easy to be coded and analysed statistically.

However, it will not provide a clear understanding of the circumstances which influenced the respondents' answers like focus groups discussions and interviews (Saunders et al, 2007; Fisher, 2007). Therefore, the data that is produced is likely to lack much by way of detail or depth as the very nature of the SERVQUAL questionnaire impose a structure on the answers (Denscombe, 1998). Strauss and Corbin (1998) argue that attitudes and behaviour studies like service quality require qualitative researches.

3.10 Analysis of Data

3.10.1 Computer programs used to analyse the data

There were not any special or unusual treatments of data before it was analysed. Two programs (SPSS and Excel) were used by identifying superiority and capabilities in statistical analysis and producing bar charts.

The results and the participants demographical details were entered into an industry recognised computer assisted analysing program (SPSS 16. Version) to analyse the findings. Computer aided analysis programs save time and provide the accuracy and wide variety of analysis (Fisher, 2007). Saunders et al (2007) also support this argument and emphasis the advantages (time, inexpensiveness and accuracy) of computer aided analysis.

The Microsoft Office Excel 2007 programs used to develop the bar charts from the statistics generated by the SPSS program.

3.10.2. How the variable were measured

The aims of this study were twofold. One is to understand and measure the service quality in a retail supermarket context and the other is to evaluate the SERVQUAL questionnaire for its reliability and validity.

Therefore variables were measured accordingly (Table 2) in line with well recognised previous studies (Parasuraman 1990, 1994; Babakus and Boller, 1992). In addition to deduction procedures this will enable to check the commonality by comparing the similarities of the findings with those previous studies.

Table 2: Aims and Measures

Aims (Service quality)	Measures
To find the perceived service quality of the store analysing the answers to the 21 questions of part one of the questionnaire	Descriptive analysis of the 21 answers to generate a table of perceptions and expectations mean values
To Find the adequate service quality level compared to the perception of 21 questions	Descriptive analysis of the 21 answers to generate a table of perceptions and adequate mean values
To find the association between the satisfaction of overall service quality and intended repeat patronage	Correlation coefficient analysis of the two variables (overall satisfaction and intended repeat patronage)
To find the most important service quality attributes according to the respondents	Descriptive analysis of 21 attributes to measure the hierarchical order
To find the Relative importance of the five dimensions (Most important dimension in a retail supermarket context)	Descriptive analysis of five dimensions to identify the hierarchical order of the dimension
Aims (Questionnaire)	Measures
To find the reliability of the five dimensions	Cronbach's alpha analysis of 21 items to find their relation to each dimension
To find whether alleged a psychometric problem exists or not	Descriptive analysis 'Desired' and 'Perception' values of 21 answers to generate a bar chart
To find whether five dimensions	Correlation matrix of 21 attributes to test

hold rules for <i>convergence</i> and <i>discrimination</i>	high and low correlation of the attributes within and among the dimensions
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3.11 Summary

This chapter considered the methodology of the research and the justification for the selected methodology and why the other methods have been rejected. The methodology adopted was a positivist stance with a deductive approach.

It further discussed how the SERVQUAL questionnaire developed using the retail industry's related wording and attributes, whilst email and face to face requests were used to identify the attributes specific to the retail super market context to ensure the reliability and validity of the content. It further explained how the sample population was selected by using the systematic random sampling technique and how and why the sample size was limited to a minimum number and the reasoning behind it and, finally, how the questionnaire was administrated and the ethical considerations were incorporated. The next chapter will analyse the findings of the research.

Chapter Four

4. Findings and Analysis

4.1 Introduction

This chapter presents the results of the questionnaire, the patterns of the results and analyses of their relevance to the research questions and aims. In the first part, the results were analysed to identify the sample demographics to get a broader idea of the sample. Then the findings were analysed to identify the customers' perceptions of service quality at the surveyed retail supermarket. Finally the findings of the questionnaire were analysed to test the validity and reliability of the SERVQUAL questionnaire.

4.2 Data Analysis

4.2.1 Respondents according to their gender

Table 3: Respondents Gender

Gender	Frequency	Percent
Male	19	59.40
Female	13	40.60
Total	32	100.00

Table: 3 indicates that there were 19 male respondents (59.40%) and 13 female respondents (40.60%). Male respondents are slightly over represented in the sample.

However, analyses were not carried out according to gender or any other demographics as the minimum sample size of 30 respondents of each demographic (i.e. male, female) is required if the statistical analysis is to be carried out according to demographics (Saunders et al 2007). However, respondents' gender, education level and age groups were identified to get a general idea of the respondents.

4.2.2 Respondents according to their Age group

Table 4: Respondents Age Groups

Age Group	Frequency	Percent
Under 20	1	3.1
20-29	7	21.9
30-39	3	9.4
40-49	7	21.9
50-59	2	6.2
Over 60	12	37.5
Total	32	100.0

Table 4 indicates that three age groups (under 20, 30-39, and 50-59 years) are under-represented when compared to the other age groups (20-29 and 40-49 years). The age group of over 60 is slightly over represented. Sekaran, (2003) stated that mature respondents are more likely to respond to the surveys than the younger respondents. Denscombe (1998) supports this argument and stated that retired people are more inclined than others to spare the time and make the effort to comply with request to help with research.

4.2.3 Respondents according to their education level

Table 5: Respondents Educational Levels

Educational level	Frequency	Percent
High School	8	25.0
College	10	31.2
University	14	43.8
Total	32	100.0

Table 3 indicates that there were $\frac{1}{4}$ of respondents (25%) who were educated up to high school level, $\frac{1}{3}$ of respondents (31.2%) who were educated up to college level and almost $\frac{1}{2}$ of respondents (43.8%) who were educated up to university level.

Therefore the majority of respondents are well educated. The presence of a University and a FE college within the surveyed area possibly contributed to this.

4.2.4 Respondents Frequency of visits to the store

Table 6: Respondents Frequency of Store Visits

Visit Store	Frequency	Percent
Daily	14	43.8
A few times a week	09	28.1
Weekly	05	15.6
Fortnightly	03	09.4
Occasionally	01	03.1
Total	32	100.0

Table 6 indicates that almost a half of the respondents (43.8%) visit the store daily. Over a quarter of the respondents (28.1%) visit a few times a week and almost 1/6 of the respondents (15.6%) visits weekly. Therefore the majority of respondents, almost three – quarters, either visit the store daily or a few times per week; hence responses represent the view of frequent visitors.

4.3 Findings of Service quality

4.3.1 SERVQUAL scores of 21 attributes:

Table: 7 –Gaps between perception and expectations of 21 attributes

Service Quality Attribute	Mean Perception	Mean Expectation	SERVQUAL Score
Product Availability at all times	7.12	8.69	-1.57
Cleanliness of Store	7.62	8.75	-1.13
Enough checkouts open all times	7.19	8.31	-1.12
Easy Access	7.44	8.53	-1.09
Visually appealing facilities	7.19	8.28	-1.09
Clean Basket & Trolleys	7.69	8.62	-0.93
Prompt service to Customers	7.47	8.37	-0.90
Wider product range	7.59	8.47	-0.88
Consistently courteous staff	7.75	8.63	-0.88
Individual attention to customers	7.44	8.22	-0.78
Visually appealing Communication Materials	7.44	8.16	-0.72
Dependability in handling problems	7.94	8.66	-0.72
Knowledgeable Staff	8.00	8.69	-0.69
Employee who understand customers needs	7.91	8.56	-0.65

Modern looking equipment	7.53	8.16	-0.63
Readiness to respond to customer requests	8.03	8.66	-0.63
Neat appearance of Staff	7.84	8.44	-0.60
Making customers feel safe in transactions	8.22	8.81	-0.59
Performing the service right first time	8.00	8.56	-0.56
Willingness to help customers	8.25	8.78	-0.53
Convenient opening hours	8.09	8.44	-0.35

Table 07 summarises the gaps found between the ‘Perceptions’ and ‘Expectations’ of the 21 attributes. According to Parasuraman et al (1988) SERVQUAL score = Perception – Expectation. The higher the positive score, the better the Service Quality. Table 07 indicates that all the 21 service quality attributes scores are negative scores. Therefore, all the 21 service quality attributes do not exceed the customers’ expectations level. In other words the customers’ desired levels are always higher than perceptions levels on all 21 attributes.

Parasuraman et al (1988) indicated that the main benefit of the SERVQUAL questionnaire is the capability to identify the service quality shortfalls. Therefore, this research also managed to identify the service quality shortfalls of the surveyed supermarket. Product availability at all times has the highest negative gap (-1.57) when compared with the rest of other service quality attributes. The cleanliness of the store is second highest with -1.13 gap and enough checkouts open at all times has the third highest with -1.12 gap.

As an employee of the organisation with more than 6 years of service, the researcher also observed that product availability at all times and the queue lengths at checkouts are two major concerns of both the store management and the head office level. Responsibility for the cleaning has been out sourced to a cleaning agency and a recent cutback of working hours of those agency workers may have directly influenced the results. However, it is difficult to understand why the easy access to the store has scored the fourth highest gap -1.09 in spite of the store being located within the city centre with easy access to all forms of transport. The only reason could be that the closure of two bridges (Hoole Bridge and Old Dee Bridge) for more than two months before the survey. Convenient opening hours has the least gap of (-0.35) or the highest scored attribute of service quality.

The Store being open for 7 days a week 362 days a year may have influenced this. Therefore, the SERVQUAL questionnaire is capable of identifying the shortfalls of service quality and the numerical gap between the perceptions and expectations. However, the validity and reliability of those findings need to be examined.

4.3.2 Most important service quality attributes in supermarket context

One of the aims of this research is to identify the most important service quality attributes in a supermarket context from the customers' point of view. Table 8 summarises the sum of desired service quality level and mean value of 21 attributes of 32 respondents in hierarchical order.

Table 8: Most important Service Quality attribute in hierarchical order. N=32

Service Quality attribute	Desired Sum	Desired Mean
To feel safe in transactions	282	8.81
Willingness to help customers	281	8.78
Cleanliness of Store	280	8.75
Knowledgeable staff	278	8.69
Product Availability at All Times	278	8.69
Dependability in handling customers problems	277	8.66
Readiness to respond to customers requests	277	8.66
Consistently courteous staff	276	8.63
Clean Basket & Trolleys	276	8.62
Employees who understand customers needs	274	8.56
Performance first time right	274	8.56
Easy Access	273	8.53
Wider Product Range	271	8.47
Neat appearance of staff	270	8.44
Convenient business Hours	270	8.44

Prompt service	268	8.37
Enough Checkouts open at all times	266	8.31
Visually appealing facilities	265	8.28
Individual attention	263	8.22
Modern looking Equipment	261	8.16
Visually appealing Communication materials	261	8.16

Table 8 indicates that the customers' most important service quality attribute is 'to feel safe in transactions' and the average value (Mean 8.81) is extremely close to the highest value of 9 on the 9 point scale. The least desired important attributes are modern looking equipment (Mean 8.16) and visually appealing physical facilities (Mean 8.16) bearing the same mean value. These findings are consistent with the Parasuraman et al (1988, 1990) findings. Berry and Parasuraman (1991) identified that tangible dimension as the least important dimension among five dimensions. This raises the question whether the tangible attributes could be considered as service quality attributes. However, Grönroos (2007) emphasises that customers should feel that the physical surroundings and other aspects of the environment of the service encounter (Servicescape) supports a positive experience of the service process.

Both the most and least important values indicate that the average desired levels are higher than 8 on a 9 point scale and therefore the desired levels are always high. This result confirms that the alleged psychometric problem exists within the SERVQUAL questionnaire.

However, the 'feel safe in transactions' could be seen as a more common concern relating to any industry due to current economic conditions and the broader publicity of identity theft and credit card frauds(BBC, 2009). Table 2 revealed that the largest number (37.5%) of respondents represents the over 60 age group and this is one of major concerns within this age group due to their limited earnings and vulnerability to frauds (Age concern, 2009).

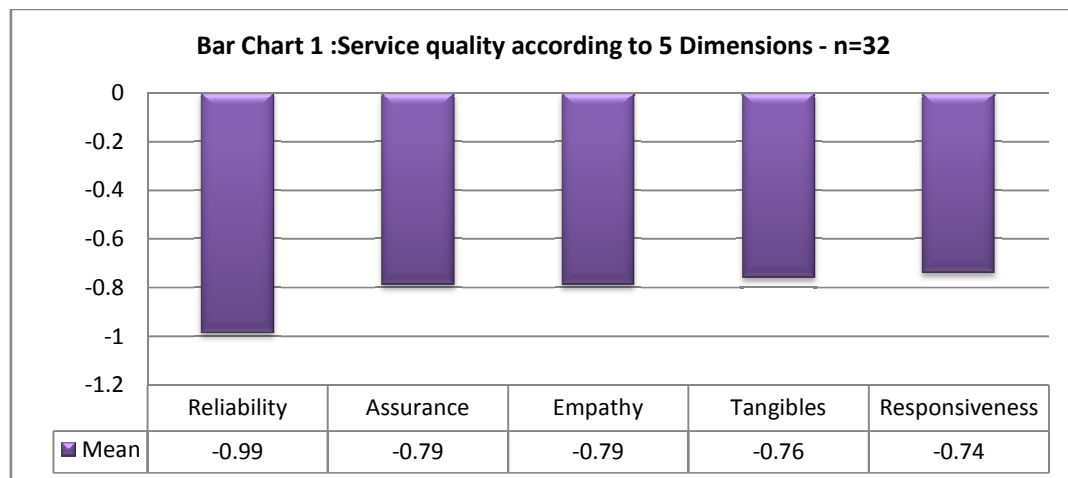
Table 8 indicates that 'willingness to help customers' is the second most important service quality attribute.

When analysing the most important service quality dimensions (Bar chart 2) also reveals that responsiveness is the second most important service quality dimension. Therefore, both the attribute and the dimension indicate the importance of responsiveness within a retail super market context.

According to table 8 cleanliness of the store is the third most important service quality attribute; perhaps unsurprisingly because of the intrinsic importance of food hygiene to the retail supermarket. However, cleanliness of the store has scored the third highest negative gap among the 21 service quality attributes. Therefore, cleanliness is a vital issue that needs to be addressed in both; an important factor as well as a shortfall.

Table 8 again revealed that the least important service quality attributes are the tangible attributes. Therefore Parasuraman et al (1988) emphasise the SERVQUAL questionnaire is capable of identifying the service quality shortfalls and the level of importance from the customers' point of view. Grönroos (2007) also argued that when business managers are able to understand the attributes that customers used to evaluate service quality then they can put in resources and effort to improve the service quality.

4.3.3 Performance along the SERVQUAL dimensions

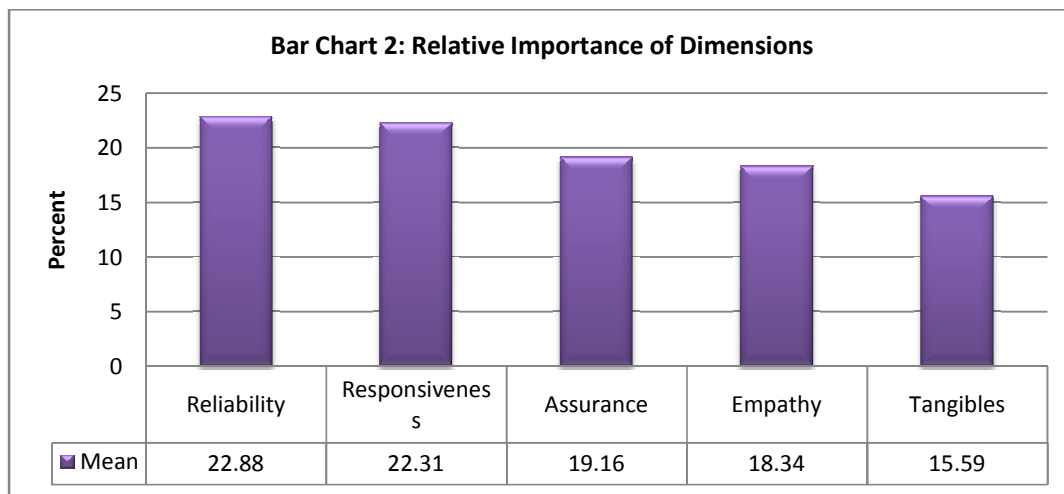


Bar chart 1 indicates the mean SERVQUAL scores of five dimensions. The more negative the score, the more serious the shortfall (Parasuraman et al 1998).

Therefore Reliability has the most negative shortfall (Mean -0.99). Assurance and empathy have the second and third negative shortfalls while bearing the same mean value (-0.79).

The supermarket has failed to deliver the customers' expectation on reliability and therefore the organisation needs to investigate how the reliability of the store could be improved.

4.3.4 Most Important Dimension of Service Quality



Respondents were asked to allocate 100 points among five dimensions according to their importance. Bar chart 2 indicates that 'Reliability' is the most important service quality dimension (Mean.22.88) followed by the 'Responsiveness' dimension (Mean 22.31). The difference of the mean values of the two dimensions is minimal (Mean % 0.57) and therefore the 'Responsiveness' dimension has an almost equal importance to the 'Reliability' dimension in a retail supermarket context.

These findings are consistent with Berry and Parasuraman (1991) findings. According to Berry and Parasuraman (1991) 'Reliability' is the most important dimension in 10 studies within different industries and claim that reliability is the core of service quality in any industry. Therefore, while identifying that 'Reliability' is the most important dimension it is necessary to recognise that 'Responsiveness' also has a similar importance in a retail supermarket context which therefore needs more attention than the other dimensions. However bar chart 1 indicates that 'Reliability' is the most negatively performed dimension.

Therefore, this research managed to identify the most important service quality attributes and dimension in a retail super market context and the areas of service quality shortfalls. This will enable the management to prioritise the areas that need improvements.

4.4 Correlations between high perceived service quality, satisfaction and repeat patronage

As discussed in the literature review it has been argued (Grönroos, 2007; Buzzell and Gale 1987) that high perceived service quality leads to customer satisfaction and repeat patronage. Therefore, this research also examines whether there is any correlation between these two factors. This has been achieved by analysing the findings in three stages.

Stage 1:

Respondents were asked to rate their **perception of overall service quality of the store** on a 9 point Likert type scale with the anchors of low = 1, high =9. Table 9 indicates that 6 respondents (18.8) are extremely satisfied (scale value 9), 13 respondents (40.6) are highly satisfied (scale value 8) and 10 respondents (31.2) are satisfied (scale value 7) with the overall service quality of the store. There is only one respondent (03.1%) who is neither satisfied nor dissatisfied by indicating the middle value of the scale (5).

Table:9 – Overall Satisfaction of Service Quality

Scale Value	Frequency	Percent
5	01	03.1
6	02	06.2
7	10	31.2
8	13	40.6
9	06	18.8
Total	32	100.0

Stage 2:

Respondents were asked to rate their intended repeat patronage on a 9 point Likert type scale with the anchors of low = 1, high =9. Table 10 indicates that 20 respondents (62.5) answered that their intended repeat patronage was extremely high (Scale value 9) and 7 respondents (21.9) have indicated that it was very high (Scale value 8).

Table 10: Respondents Intended Repeat Patronage

Scale Value	Frequency	Percent
2	01	3.1
6	01	3.1
7	03	9.4
8	07	21.9
9	20	62.5
Total	32	100.0

Stage 3:

As revealed by tables 9 and 10, the Correlation coefficients of the two factors were measured to determine the correlations between overall satisfactions and intended repeat patronage.

Table 11: Correlations

		Overall Satisfaction	Intended Repeat Patronage
Overall Satisfaction	Pearson Correlation	1.000	.692**
	Sig. (1-tailed)		.000
	N	32	32
Intended Repeat Patronage	Pearson Correlation	.692**	1.000
	Sig. (1-tailed)	.000	
	N	32	32

**. Correlation is significant at the 0.01 level (1-tailed).

Table 11 indicates that there is a positive correlation between overall satisfaction of service quality and the repeat patronage.

Therefore the reviewed literature and the empirical findings support the idea that there is a positive correlation between the satisfaction of service quality and the repeat patronage within the surveyed supermarket context.

4.5 Reliability of the dimensions

The findings suggest that (Table 12) the overall reliability of the SERVQUAL scale is *Cronbach's alpha* 0.97 which is extremely close to 0.8 – 1 criterion (Bryman and Carmer (2005). However when dimensions were assessed individually, the Reliability and Empathy dimensions' *Cronbach's alpha* value are below the 0.8-1 criterion (Reliability 0.74 and Empathy 0.57). Therefore those two dimensions indicate a poor internal reliability which raises the question of internal reliability of the two dimensions.

Table: 12 Reliability Analysis and Descriptive Results on SERVQUAL (n = 32)

Items	Dimension	Coefficient alpha	Item to total correlation	Scale Mean
Q 04	Tangibles	0.89	0.70	-0.76
Q 05			0.78	
Q 08			0.72	
Q 10			0.64	
Q 21			0.66	
Q 07	Reliability	0.74	0.37	-0.99
Q 09			0.58	
Q 17			0.59	
Q 18			0.71	
Q 06	Responsiveness	0.85	0.49	-0.74
Q 12			0.82	
Q 13			0.73	
Q 16			0.82	
Q 03	Assurance	0.86	0.71	-0.79
Q 11			0.71	
Q 14			0.86	
Q 19			0.45	
Q 20.			0.70	
Q 01	Empathy	0.57	0.53	-0.79
Q 02			0.35	
Q 15			0.30	

4.6 Distinctiveness of Dimensions

The sample correlation matrix of the SERVQUAL items (Table 13) was examined using Bagozzi's (1981) rules for convergence and discrimination.

Table 13: Sample correlation of the SERVQUAL scale items (n=32)

	Q 01	Q 02	Q 03	Q 04	Q 05	Q 06	Q 07	Q 08	Q 09	Q 10	Q 11	Q 12	Q 13	Q 14	Q 15	Q 16	Q 17	Q 18	Q 19	Q 20	Q 21
Q 01																					
Q 02	48																				
Q 03	37	11																			
Q 04	24	8	53																		
Q 05	53	19	75	67																	
Q 06	46	57	52	47	50																
Q 07	43	23	37	25	32	48															
Q 08	49	27	77	58	68	49	42														
Q 09	47	14	28	30	31	32	27	22													
Q 10	65	35	55	46	53	61	41	57	52												
Q 11	66	43	61	54	65	55	32	50	47	63											
Q 12	69	34	61	51	65	54	52	58	67	70	84										
Q 13	58	21	37	40	41	36	43	33	59	42	50	72									
Q 14	64	33	74	50	73	43	32	59	42	57	69	76	64								
Q 15	37	14	20	34	27	23	39	23	66	34	41	65	80	47							
Q 16	57	32	49	40	48	48	49	42	78	61	57	80	79	69	83						
Q 17	54	32	38	31	45	35	24	26	56	41	69	73	68	65	57	65					
Q 18	43	14	35	38	49	34	43	24	60	36	45	69	82	65	81	82	61				
Q 19	39	5	39	14	36	29	18	16	69	47	40	58	47	49	38	56	68	54			
Q 20	51	32	58	50	63	47	35	47	32	50	61	63	63	76	45	52	54	59	32		
Q 21	58	18	60	68	72	52	51	62	66	64	68	84	70	67	67	75	54	66	46	53	

Table 13 indicates that the rules for convergence and discrimination do not hold as there is no uniformly high correlation among items of the same dimension and low correlation with items in other dimensions. For example, items related to Tangible dimension presented in red do not indicate a uniform high correlation among items of the same dimension and a low correlation with items in other dimensions. Attribute 21 has highly correlated with the all the attributes of other dimensions (bold numbers) and therefore the rules for convergence and discrimination do not hold.

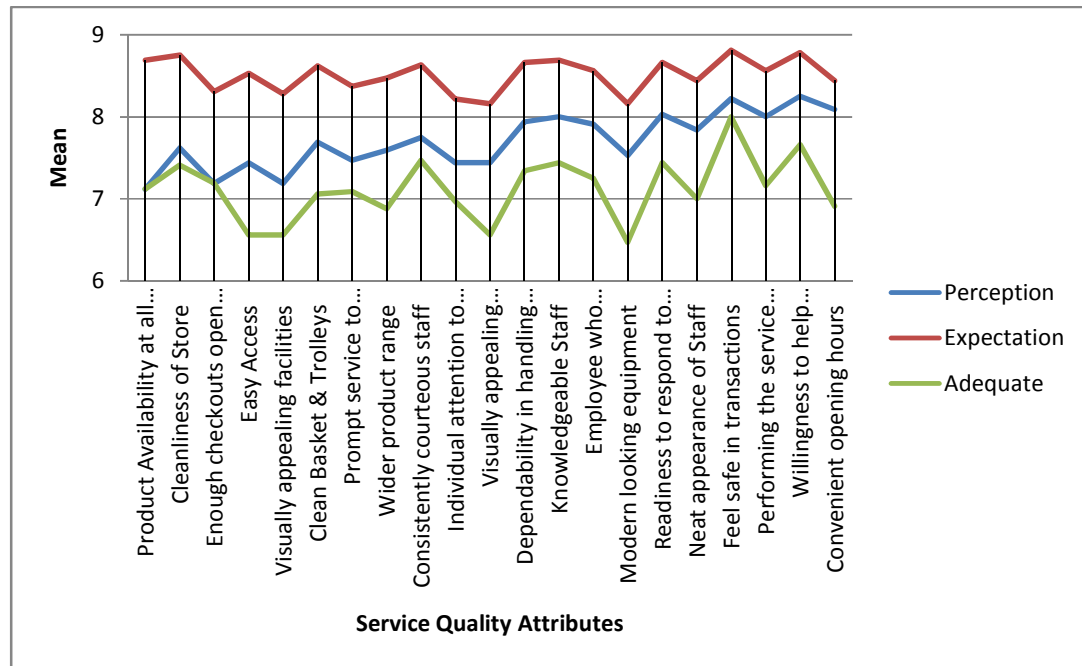
4.7 Psychometric problem

By examining the line chart 1 it can be identified that the respondents' desired levels were always higher than their perception level. At the same time respondents have anchored their desired level between 8 and 9 on 1-9 point scale and have allocated lower values for the perception and adequate levels. Therefore theoretical arguments (Babakus and Boller, 1992; Brown et al, 1993) and findings offer the support the view that an alleged psychometric problem exists within the SERVQUAL questionnaire.

The other problem is that once the respondents anchored their desired and adequate level on either side of the scale (i.e. 9 and 5) then it limits the full use of the 9 point scale to express the perception (i.e. between 9 and 5) which will lead to a variance restriction (Caruana et al, 2000). Line chart 1 clearly indicates that this problem exists as the respondents have marked their perception in between the desired and adequate levels. However, respondents have managed to indicate the size and the direction of disconfirmations (Churchill and Surprenant 1982; cited by Parasuraman et al, 1985) on each service quality attribute by indicating bigger and lower gaps accordingly between expectations and perceptions as well as adequate levels. There is a bigger distance (gap) between the expectation and perception of product availability at all times and a smaller distance within the convenient opening hours.

Same time, respondents managed to indicate the adequate levels and the size of disconfirmation. Therefore product availability at all times and enough checkouts open at all times have zero distance and indicate that the store is just providing the adequate level and there is more opportunity to improve.

However the store has managed to provide a satisfactory service quality for the rest of the 19 attributes by providing a more than adequate level of service.



Line chart 1: Levels of Expectations, Perceptions and Adequate Service Quality

Therefore, the SERVQUAL questionnaire creates some psychometric problems when measuring the desired levels of service quality which raise questions of its reliability and validity. However, it is capable of capturing and indicating the customers' perceptions of service quality and the service shortfalls. Hence the main focus should be to measure the customers' perceptions of perceived service quality and the adequate level by omitting the desired levels.

4.8 Summary

This chapter explored the answers to the 3 sections of the questionnaire based on statistical analysis. It presents the tables, graphs and charts based on the data compiled through the statistical analysis using the SPSS and Excel programs. Through the analysis of the findings, it identified the most important service quality attributes, dimensions and shortfalls from the customers' perspectives and the possible reasons for the outcomes. The next chapter will present the conclusions to the research.

Chapter 5

5. Conclusions and Implications

5.1 Introduction

This chapter will discuss the conclusions of this research. It will evaluate the adopted methodology and present the conclusion for each research aim and to the research question. At the end it will discuss the limitation of the methodology and the implications for future research.

5.2 Evaluation of adopted methodology

The principles and procedures used to answer the research question have primarily been decided by the research question itself. One of the aims of this research was to identify the capabilities and limitations of the SERVQUAL questionnaire for capturing and measuring the service quality in a retail supermarket context and the validity and the reliability of the construct and the content of the instrument.

Firstly, there were two options; either to use a qualitative or a quantitative method. After a careful evaluation of the strength and weaknesses of both methods, the quantitative method was selected as the viable option due to its rigor, external validity and reliability (Sekaran, 2003, Fisher 2007). The survey was designed to analyse the findings through statistical analysis which specifically attempts to analyse the validity and reliability of the survey instruments. These analytical procedures are more precise than the qualitative approaches and therefore, provide more reliability and validity to the findings (Saunders et al 2007).

However, there was an opportunity at the questionnaire design stage to have a qualitative approach to identify the intrinsic service quality attributes of the retail supermarket in detail. This may have given an opportunity to understand why customers choose those attributes and the criteria used to categorise those attributes in to the relevant dimensions. Babakus and Boller (1992) have been critical of the way that Parasuraman et al (1988) have categorised the five dimensions.

Babakus and Boller (1992) advocated that the best option is to ask the respondents to categorise 21 attributes into five dimensions through a properly designed survey which will provide more internal reliability to five dimensions individually and to the SERVQUAL questionnaire as a whole.

Secondly, the philosophical stance is that the researcher's personal experience and beliefs as an insider of the organisation should not influence the research findings (Saunders et al 2007). Therefore the positivist stance was selected to make sure that the findings were not researcher biased (Saunders et al, 2007) but the actual reality exists within the supermarket.

Thirdly, Sample size has been decided on a theoretical argument based on the central distribution theory (Saunders et al, 2007) which has the external validity to generalise the findings. It was the viable option due to a limited budget and time. However, if the budget and time allowed there would be an opportunity to select the 378 respondents which could provide 95% certainty (5% margin of error) of the probability of generalising the findings to the total sample population.

Finally, the findings from the SERVQUAL questionnaire were able to triangulate through a focus group discussion or a similar method. This may have provided an opportunity to find the answers to which the SERVQUAL questionnaire was unable to provide an answer (i.e. why easy access to store scored the third highest service quality gap in spite being located within the city centre?).

However, the adopted methodology was able to support and fulfil the aims and to find the answers to the research question.

5.3 Evaluation of the SERVQUAL questionnaire

Questionnaires have more reliability than the focus group discussions and interviews due to it repeatability of the same procedures to find or compare the commonalities with previous researches. However, questionnaires are not capable of capturing the underline circumstances which influence the answers to the questions (Sekaran 2003, Fisher 2007).

Saunders et al (2007) advocates that qualitative approaches are more suitable for 'feelings and attitudes' type of researches as those feelings and attitudes are subjective to each respondent. However, this research shows that respondents managed to express their individual feelings of the service quality on a 9 point scale. Therefore, the SERVQUAL 9 point scale has managed to capture the subjectivity or individuality though those individual answers have been averaged for statistical purposes. However, at the pilot study, some respondents questioned the difference between two numbers (i.e. 5 and 6) in 1-9 Likert type scale and the meaning they represent as there were no meaning given to each number other than low = 1 and 9 = high. According to Parasuraman et al (1988) in the directions of the SERVQUAL questionnaire to respondents, it states that there are no right and wrong answers and they are only interested of knowing a number. Therefore the SERVQUAL questionnaire produce uninformed answers (Saunders et al, 2007) as two different respondents may interpret the same number in two different ways which raises doubts of the predictive and construct validity (Saunders et al, 2007) of the questionnaire.

Line chart 1 indicated that customers received a satisfactory service quality as the perceptions are higher than the adequate levels on all 21 attributes. These findings are consistent with monthly mystery shopper feed backs which confirms the stores overall service quality by scoring 98.5% just before the survey (February), 100% on the same month of this survey (March) and 95% on just after the survey (April).

However, when examining the individual questionnaires, it was clear that most of the respondents have maintained a clear pattern of marking the answers. In the questionnaire for each and every 21 questions respondents need to mark their responses on 3 side by side 9 point scales; firstly desired, secondly perception and thirdly adequate service quality levels. Most of the individual questionnaires show that respondents have pre determined 3 numbers (i.e. 9, 8,6) and repeated the same numbers for all the answers throughout the questionnaire. This raises the question whether respondents have carefully evaluated each and every question before they answered or just repeated the same numbers due to the length of the questionnaire. At the pilot study the length of the questionnaire had been identified as a major concern. Therefore, this can be seen as another drawback of the SERVQUAL 3 side by side 9 point scales.

5.4 Conclusions to each research objective (aim)

There were 4 aims to this research as identified in the Introductory Chapter.

- To understand the contemporary thinking of service quality
- To measure and analyse the customers' desired, adequate and perception of service quality in a retail supermarket context
- To discover and analyse whether there is any correlations between service quality, customer satisfaction and repeat patronage
- To discover and analyse the capabilities and limitations of the SERVQUAL questionnaire for measuring service quality in a retail supermarket context

5.4.1 Conclusion to aim 1:

The first aim of this research study is to understand the contemporary thinking of service quality. Saunders et al (2007) stress that when someone embarks on research; the researcher is developing new knowledge in a particular field. This study provided a broader and deeper understanding of the service quality, evaluative criteria customers used to evaluate the service quality, how the organisations can benefit from providing high perceived service quality and how to measure it correctly to gain those benefits.

At the same time, it provided an understanding of qualities and criteria that need to be considered as vital components of a reliable and valid service quality measuring instrument and valid methods, procedures and ethical considerations that need to be observed during a process of developing and deploying such a measuring instrument.

5.4.2 Conclusion to aim 2:

The second aim of this research is to analyse the service quality in a retail supermarket context from the customers' point of view. This research study managed to identify and analyse the service quality attributes customers used to evaluate service quality, their relative importance in a retail supermarket context and service quality shortfalls. However doubts arise of reliability and validity of those findings due to a psychometric problem in the respondents' answers to the desired levels of service quality.

5.4.3 Conclusion to aim 3

The third aim of this research is to discover and analyse whether there is any positive correlations between service quality, customer satisfaction and repeat patronage. The literature review and empirical results both suggest that high perceived service quality influence customer satisfaction and repeat patronage. The literature clearly supports the positive relationship of high perceived service quality with customer satisfaction and repeat patronage and explains the numerous advantages organisations gain from it (Bearden and Teel, 1983; Buzzell and Gale, 1987).

The analysis of findings produced the tables 9, 10, and 11. Therefore the analysis of correlations (Table 11) revealed the positive correlation of the overall satisfaction of service quality with the intended repeat patronage. Table 9 revealed that majority 90.6% are satisfied with the overall service quality and therefore the overall satisfaction is high. Table 10 revealed that 93.8% of respondents state that their intended repeat patronage is on or over 7 on a 9 point scale. This indicates that their intended repeat patronage is also high.

Table 11 indicates positive correlation (.692) between overall satisfaction of service quality and intended repeat patronage. Therefore, with the theoretical support and empirical findings of this research it could be concluded that high perceived service quality influences the customer satisfaction and repeat patronage.

5.4.4 Conclusion to aim 4:

The fourth aim of this research study was to discover and analyse the capabilities and limitations of the SERVQUAL questionnaire for measuring service quality in a retail supermarket context. This has been achieved by assessing the reliability, dimensionality of the five dimensions and the alleged psychometric problem.

5.4.4.1 Assessment of Reliability

The levels of consistency of the SERVQUAL questionnaire as a whole and of individual dimensions provide a mixed picture. The level of overall internal reliability is deemed acceptable, in spite of the fact that Reliability (0.74) and Empathy (0.54) dimensions do not reach the 0.8 criterion and therefore have some problems.

It raises the question whether the dimensions that makes up the SERVQUAL questionnaire is internally consistent (Bryman and Carmer, 2005, Saunders et al, 2007). Therefore it is concluded that overall reliability of the 3 dimensions (Tangibles 0.89, Responsiveness 0.85, and Assurance 0.86) are deemed acceptable. However, the reliability of the Reliability and Empathy dimensions are not acceptable. Therefore the findings pertaining to those two dimensions are not reliable.

5.4.4.2 Assessment of Dimensionality

This study shows that in (Table 14) the five dimensions are not distinct and therefore they are multidimensional suggesting that individual scale items do not actually belong to five distinct dimensions. Therefore, it is concluded that the five dimensions are not distinct and they are multi dimensional. Hence, researchers need to be aware of the validity of measuring service quality using SERVQUAL as five dimensional measures.

5.4.4.3 Psychometric problem

Theoretical arguments and the findings of this research from the analysis of line chart 1 support the existence of the psychometric problem. Line chart 1 indicates that respondents 'Desire' levels are always higher than the 'Perception' levels. This indicates that the alleged psychometric problem exists within the SERVQUAL questionnaire and therefore the reliability and the validity of those answers are questionable.

5.5 Conclusions about the research question

The research question of this dissertation was to analyse the SERVQUAL questionnaire for its capabilities and limitations to measure the service quality in a retail supermarket context.

The collective findings of reliability, dimensionality and the psychometric problem raised the question of the validity and reliability of the SERVQUAL questionnaire to measure the service quality in any organisational context.

Therefore, though SERVQUAL questionnaire could identify the shortfalls of service quality the validity of those measures are questionable. Hence it is concluded that according to above findings the SERVQUAL questionnaire is not a reliable or a valid instrument for measuring service quality in the retail supermarket context.

5.6 Limitations of the study

From the designing stage to the final survey of this study attempt has been taken to minimise the limitations. However, the findings and the sample respondents represent the customer population of a single retail supermarket store operating within the Chester area. There are a range of other supermarkets which also operate within the area from discount stores to high value stores. Therefore the customers' perceptions and service quality attributes could be different in other supermarkets. Therefore, the capability of generalise the findings beyond the surveyed supermarket store is highly limited. (Saunders et al 2007).

5.7 Opportunities for further research

The findings suggest that measuring the service quality as a 'gap score' is not theoretically viable as the psychometric problem occurs when measuring the service quality using separate scales (desired and perception separately).

Therefore, the development of a scale that could capture the expectation and perception in a single scale is a viable strategy to pursue. Babakus and Boller (1992) and Carman (1990) also support the idea of a single scale to avoid the problems created by separate scales. This may be achieved by employing a Likert type 9 point scale in which respondents could express their adequate service quality level as well as the perception level in a single scale (i.e. 1= lower than adequate, 5= about adequate and 9= higher than adequate). However, this needs to be further researched. This will eliminate the psychometric problem and reduce the number of answer 1/3 (21 answers against 63) to the questionnaire by enabling researchers to capture the same amount of detail with less effort for both the researcher to analyse and the respondents to answer.

Secondly, it is not viable to standardise the SERVQUAL questionnaire for all industries as the service quality attributes are different from one industry to another.

Therefore developing an industry specific instrument for a retail supermarket (perhaps name as RETAILQUAL or SUPERQUAL) may be a more viable research strategy to pursue. There is a possibility of developing a hybrid version by including the attributes recommended by Nordic and American perspectives. This type of strategy will enable a more precise understanding of the criteria customers use to evaluate the service quality in a super market context.

5.8 Summary

This research discussed the numerous advantages to an organisation by providing a better service quality that could distinguish it from the competitors (Zeithaml and Bitner, 2000; Grönroos, 2007). It examined the service quality theory and difference between the product quality and service quality and the attributes which differentiate one from another.

Then it identified the possible correlation of service quality with customer satisfaction and repeat patronage leading to a discussion of service quality models and the SERVQUAL questionnaire.

An evaluation of findings revealed the shortfalls in service quality of the surveyed organisation. The evaluation of the SERVQUAL measuring instrument revealed the capability of identifying the shortfalls. However, there is a limitation to those findings due to the inherited psychometric problem. Therefore, there is a future opportunity for research to develop a service quality measuring instrument with a single scale specific to retail supermarkets.

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Appendix

- Exhibit 1: Seven criteria of good service quality - (Grönroos 2007)
- Exhibit 2: Ten determinants of service quality - Parasuraman et al (1985)
- Exhibit 3: Twenty two attributes of SERVQUAL instrument
- Exhibit 4: Example of SERVQUAL use in different context
- Exhibit 5: Eight qualities of the positivism
- Exhibit 6: Email-request
- Exhibit 7: Request letter for gaining access
- Exhibit 8: Covering Letter for the questionnaire
- Exhibit 9: SERVQUAL questionnaire

1. Professionalism and Skills:

Customers realise that the service provider, its employees, operational system and physical resources have the knowledge and skills required to solve their problems in a professional way (outcome-related criteria)

2. Attitudes and Behaviour:

Customers feel that the service employees (contact persons) are concerned and interested in solving their problems in a friendly and spontaneous way (process –related criteria)

3. Accessibility and Flexibility:

Customers feel that the service provider, its location, operating hours, employees and operational systems are designed and operate so that it is easy to get access to the service and are prepared to adjust to the demands and wishes of customers in a flexible way (process – related criteria)

4. Reliability and Trustworthiness:

Customers know that whatever takes place or has been agreed upon, they can rely on the service provider, its employees and systems and keep promises and perform with the best interest of the customers at heart (process –related criteria)

5. Service Recovery:

Customers realise that whenever something goes wrong or something unpredictable happens the service provider will immediately and actively take action to keep in control of the situation, find new ways and acceptable solution (process –related criteria)

6. Serviscape:

Customers feel that the physical surrounding and other aspects of the environment of the service encounter support a positive experience of the service process (process –related criteria)

7. Reputation and Credibility:

Customers believe that the service provider's business can be trusted and gives adequate value for money, and that it stands for good performance and value which can be shared by customers and the service provider (image- related criteria)

1. **Tangibles:** Appearance of physical facilities, equipment, personnel and communication materials
2. **Reliability:** Ability to perform the promised service dependably and accurately
3. **Responsiveness:** Willingness to help customers and provide prompt service
4. **Competence:** Possession of the required skills and knowledge to perform the service
5. **Courtesy:** Politeness, respect, consideration and friendliness of contact personnel
6. **Credibility:** Trustworthiness, believability, honesty of the service provider
7. **Security:** Freedom from danger, risk or doubt
8. **Access:** Approachability and ease of contact
9. **Communication:** Keeping customers informed in language they can understand and listening to them
10. **Understanding the customer:** Making the effort to know customers and their needs.

Reliability

1. Providing services as promised.
2. Dependability in handling customers' service problems.
3. Performing services right the first time.
4. Providing services at the promised time.
5. Maintaining error-free records.

Responsiveness

6. Keeping customers informed about when services will be performed.
7. Prompt service to customers.
8. Willingness to help customers
9. Readiness to respond to customers' requests.

Assurance

10. Employees who instil confidence in customers.
11. Making customers feel safe in their transactions.
12. Employees who are consistently courteous.
13. Employees who have the knowledge to answer customer questions.

Empathy

14. Giving customers individual attention.
15. Employees who deal with customers in a caring fashion.
16. Having the customer's best interest at heart.
17. Employees who understand the needs of their customers.
18. Convenient business hours.

Tangibles

19. Modern equipment.
20. Visually appealing facilities.
21. Employees who have a neat, professional appearance.
22. Visually appealing materials associated with the service.

Exhibit 4: Example of SERVQUAL use in different context

Real estate brokers	(Johnson, Dotson, and Dunlop 1988);
Physicians in a private practice	(Brown and Swartz 1989);
Public recreation programs	(Cmmpton and Mackay 1989);
Dental school patient clinic, a business school placement centre, and a tyre store	(Carman 1990);
Motor carrier companies	Brensinger and Lambert 1990
Accounting firm	Bojanic 1991
Discount and department stores	Finn and Lamb 1991; Teas 1993
Gas and electric utility company	Babakus and Boller 1992
Hospitals	Babakus and Mangold 1992; Carman 1990
Banking, pest control, dry cleaning, and fast food	Cronin and Taylor 1992
Higher education	Boulding, Kalra, Staelin and Zeithaml 1993; Ford, Joseph and Joseph 1993


(Source Parasuraman et al 1994b)

1. Independence: The observer must be independent from what is being observed.
2. Value-freedom: the choice of what to study and how to study it, can be determined by objective criteria rather than by human beliefs and interest
3. Casualty: the aim of the social sciences should be to identify casual explanations and fundamental laws that explain regularities in human social behaviour.
4. Hypothesis and deduction: science proceeds through a process of hypothesing fundamental laws and then deducting what kind of observations will demonstrate the truth or falsity of these hypotheses.
5. Operationalisation: concepts need to be operationilised in a way which enables facts to be measured quantatively
6. Reductionism: problems as a whole are better understood if they are reduced in to the simplest possible elements
7. Generalisation: in order to be able to generalized about regularities in human and social behaviour it is necessary to select samples of sufficient size from which inference may be drawn about the wider population
8. Cross-sectional analysis: such regularities can most easily be identified by making compressions of variation across samples

Exhibit 6 – Email request

Send | Save draft | Attach ▼ | Spell check | Rich text ▼ | ! ↓ | Cancel

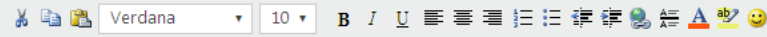
Options ▼ ? ▼

From: sarathpd@hotmail.com ▼ [Show Cc & Bcc](#) 

To:

Click the "To" button to see your contact list | ✕

Subject: Service Quality features

 Verdana 10 **B** *I* U [List icons] [Link icon] [Image icon] [Table icon] [Undo icon] [Redo icon] [Font color icon] [Background color icon] [Text color icon] [Text background color icon] [Smiley icon]

Hi all,

I am developing my research questionnaire to capture the customers' perceptions of service quality at Tesco Chester Store. As part of the process I want to understand what (service quality attributes) customers are expecting from a supermarket.

Therefore may I ask you 'As a customer what features do you expect from an excellent supermarket?

I would be most greatfull if you could contribute your thoughts to the attached list. please delete the items that are least important to you.

Hope you all are doing OK with your dissertations. Good luck

Exhibit 7 – Request Letter for gaining access to the survey

Sarath Dayarathna

Checkouts

28 May 2009

Mr. [REDACTED]

Store Manager

[REDACTED] – Chester.

Dear Sir,

Re: Proposed Survey of Customers' Perceptions of Service Quality

As part of my Masters Degree of Business Administration - final year dissertation, I wish to carry out a survey of customers' perceptions of service quality at Chester store.

This will enable us to understand most vital attributes of service quality from the customers' perspectives and how we as a store could fulfil them to attract new customers and retain existing customers by providing a better service to gain the competitive advantage.

The survey need not disturb the customers during their shopping and could be carried out in the car park and outside the shop floor during late January – March 2009.

I would very much appreciate if you could grant your permission to conduct this survey.

Thanking you

Yours sincerely

Sarath Dayarathna

SERVICE QUALITY QUESTIONNAIRE

Dear Customer,

As part of my final year MBA dissertation at the University of Chester, I am conducting a survey about service quality at [REDACTED] - Chester Store. Your responses are important in enabling me to obtain as full an understanding as possible of this topic. Therefore I would be most grateful if you could answer the attached questionnaire which should take ten minutes to complete.

Findings of the research will be read by the University for assessment of the dissertation and will be passed on to the [REDACTED] - Chester management for improvement of SERVICE QUALITY. Please take this opportunity to express your perception of service quality at [REDACTED] - Chester Store.

Completed and returned questionnaires will get a chance to win a [REDACTED] Gift card worth £50. If you would like to enter the raffle, please provide your name and contact telephone number. These personal details will be used only for the raffle and will be treated as confidential and destroyed immediately afterwards.

Thank you for taking the time to complete this questionnaire. If you have any queries please do not hesitate to contact me on 01244 [REDACTED].

Please post the completed questionnaire by 18th of March 2009, in the envelop provided

Thank you

Sarath Dayarathna

SECTION ONE - Directions:

I would like to get your opinions about how well [REDACTED] - Chester Store performs relative to your expectations. Please think about two different levels of expectations:

Desired Service Level: the level of service performance you believe an excellent Supermarket can and should deliver; and

Adequate Service Level: the minimum level of service performance you would consider acceptable

For each of the following attributes, please indicate

- Your ***desired service level*** on that feature by circling one of the nine numbers in the ***first column***
- Your ***adequate service level*** by circling one of the nine numbers in the ***second column***
- Your ***perception of [REDACTED] - Chester store performance*** by circling one of the nine numbers in the ***third column***

There are no right or wrong answers; all I am interested in are three ratings on each attribute that best represent your *desired service level*, *adequate service level*, and *perception of [REDACTED] - Chester store's performance*.

Note:

- Your desired service level is the level of performance you believe an excellent super market can and should deliver***
- Your adequate service level is the minimum level of service performance you would consider acceptable***

a). Easy access to store

1. My desired Service level	2. My adequate service level	3. My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

b). Convenient opening hours

1. My desired Service level	2. My adequate service level	3. My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

c). Cleanliness of the store

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

d). Availability of Clean Baskets and Trolleys

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

e). Visually appealing communication materials

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

f). Wider product range

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

g). Products availability at all times

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

h). Modern looking equipment

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

i). Enough checkouts open at all times

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

j). Neat appearance of staff

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

k). Consistently courteous staff

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

l). Staff willingness to help customers

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

m). Staff readiness to respond to customers' requests

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

n). Staff who understand the needs of their customers

My desired Service level	My adequate service level	My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

o). Giving customers' individual attention

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

p). Prompt service to customers

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

q). Performing services right the first time

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

r). Dependability in handling customers' problems

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

s). Making customers feel safe in their transactions

1.My desired Service level	2.My adequate service level	3.My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

t). Knowledgeable staff who can answer the customers questions

1.My desired Service level	2. My adequate service level	3. My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

u). Visually appealing facilities

My desired Service level	My adequate service level	My perception of store performance
Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High

SECTION TWO: v)

Listed below are five features pertaining to Supermarkets and the service they offer. I would like to know how important each of these features is to *you* when you evaluate the service offered by a Supermarket.

Please allocate a total of 100 points among the five features ***according to how important each feature is to you*** - the more important a feature is to you, the more points you should allocate to it. Please ensure that the points you allocate to the five features add up to 100.

1. The appearance of the supermarket's physical facilities,
equipment, personnel and communication materials. _____points
2. The supermarket's ability to perform the service
dependably and accurately. _____points
3. The supermarket's willingness to help customers
and provide a prompt service. _____points
4. The knowledge and courtesy of the supermarket personnel
and their ability to convey trust and confidence. _____points
5. The caring, individualised attention the supermarket
provides it's customers. _____points

TOTAL points allocated **100** points

W).

1. Which feature of the above five is most important to you? _____
(Please enter the feature's number)
2. Which feature is second most important to you? _____
3. Which feature is least important to you? _____

x). SECTION THREE: ABOUT YOURSELF

Please **circle** the numbers representing the most appropriate responses for you in respect of the following items.

1. Please indicate your Gender

1. Male 2. Female

2. Which of the following best describe your Age (years):

- | | |
|-------------|------------|
| 1. Under 20 | 2. 20-29 |
| 3. 30-39 | 4. 40-49 |
| 5. 50-59 | 6. Over 60 |

3. Which of the following best describe your educational level?

- | | |
|-------------------|----------------|
| 1. Primary school | 2. High school |
| 3. College | 4. University |

4. I visit the store:

- | | |
|------------|-----------------------|
| 1. Daily | 2. A few times a week |
| 3. Weekly | 4. Fortnightly |
| 5. Monthly | 6. Occasionally |

5. My overall satisfaction of service quality of the store is: **Low 1 2 3 4 5 6 7 8 9 High**

6. I can see myself visiting the store in coming months and years: **Low 1 2 3 4 5 6 7 8 9 High**

7. How did you find this questionnaire to understand? Please circle a number:

Very easy 1 2 3 4 5 *Very difficult*

8. Do you think that the questionnaire was capable enough to express your service quality expectations correctly and accurately? 1. Yes 2. No

3. If the answer is No (Please explain) -----

*I sincerely appreciate your time and cooperation. Please check to make sure that you have not skipped any questions inadvertently, and then drop the questionnaire in the box clearly marked at the self serve checkouts. **Many thanks!***

This section is not related to the questionnaire.

Please provide relevant details only if you wish to participate in the raffle. Otherwise please leave it blank.

£50 Gift Card Raffle

- I would like to participate in the raffle to win the £50 XXXXXXXXXX Gift Card:

1. Yes 2.No

If yes, please provide the contact details. This will only be used to contact you if you are the winner.

Name -----

Contact Telephone no: -----

Thank you!

Answers to each research question.

Section one was designed to gauge the customers' perception of desired service level, adequate service level and their perceptions of the perceived service quality. All the questions presents with 3 side by side 9 point Likert scale with anchors 1=low - 9 = high

Question (a): easy access to store

Table 7: Easy Access to Store

	N	Sum	Mean
Desired level	32	273	8.53
Adequate level	32	210	6.56
Perception	32	238	7.44

Question (b): convenient opening hours

Table 8: Convenient business hours

	N	Sum	Mean
Desired level	32	270	8.44
Adequate level	32	221	6.91
Perception	32	259	8.09

Question (c): Cleanliness of the store

Table 9: Cleanliness of the store

	N	Sum	Mean
Desired level	32		8.75
Adequate level	32		7.41
Perception	32		7.62

Question (d): Availability of Clean Baskets and Trolleys

Table 10: Availability of clean basket and trolleys

	N	Sum	Mean
Desired level	32	276	8.62
Adequate level	32	226	7.06
Perception	32	246	7.69

Question (e): Visually appealing communication materials

Table 11: Visually appealing communication materials

	N	Sum	Mean
Desired level	32	261	8.16
Adequate level	32	210	6.56
Perception	32	238	7.44

Question (f): Wider product range

Table 12: Wider product range

	N	Sum	Mean
Desired level	32	271	8.47
Adequate level	32	220	6.88
Perception	32	243	7.59

Question (g): Products availability at all times

Table 13: Products availability at all times

	N	Sum	Mean
Desired level	32	278	8.69
Adequate level	32	228	7.12
Perception	32	228	7.12

Question (h): Modern-looking equipment

Table 14: Modern looking equipment

	N	Sum	Mean
Desired level	32	261	8.16
Adequate level	32	207	6.47
Perception	32	241	7.53

Question (i): Enough checkouts open at all times

Table 15: Enough checkouts open at all times

	N	Sum	Mean
Desired level	32	266	8.31
Adequate level	32	230	7.19
Perception	32	230	7.19

Question (j): Neat appearance of staff

Table 16: Neat appearance of staff

	N	Sum	Mean
Desired level	32	270	8.44
Adequate level	32	224	7.00
Perception	32	251	7.84

Question (k): Consistently courteous staff

Table 17: Consistently courteous staff

	N	Sum	Mean
Desired level	32	276	8.63
Adequate level	32	239	7.47
Perception	32	248	7.75

Question (l): Staffs' willingness to help customers

Table 18: Staffs' willingness to help customers

	N	Sum	Mean
Desired level	32	281	8.78
Adequate level	32	245	7.66
Perception	32	264	8.25

Question (m): Staff readiness to respond to customers' requests

Table 19: Staff readiness to respond to customers' requests

	N	Sum	Mean
Desired level	32	277	8.66
Adequate level	32	238	7.44
Perception	32	257	8.03

Question (n): Employees who understand the needs of their customers

Table 20: Employees who understand the needs of their customers

	N	Sum	Mean
Desired level	32	274	8.56
Adequate level	32	232	7.25
Perception	32	253	7.91

Question (o): Giving individual attention to customers

Table 21: Giving individual attention to customers

	N	Sum	Mean
Desired level	32	263	8.22
Adequate level	32	223	6.97
Perception	32	238	7.44

Question (p): Prompt service to customers

Table 22: Prompt service to customers

	N	Sum	Mean
Desired level	32	268	8.37
Adequate level	32	227	7.09
Perception	32	239	7.47

Question (q): Performing services right the first time

Table 23: Performing services right the first time

	N	Sum	Mean
Desired level	32	274	8.56
Adequate level	32	229	7.16
Perception	32	256	8.00

Question (r): Dependability in handling customers' problems

Table 24: Dependability in handling customers' problems

	N	Sum	Mean
Desired level	32	277	8.66
Adequate level	32	235	7.34
Perception	32	254	7.94

Question (s). Making customers feel safe in their transactions

Table 25: Making customers feel safe in their transactions

	N	Sum	Mean
Desired level	32	282	8.81
Adequate level	32	256	8.00
Perception	32	263	8.22

Question (t): Knowledgeable staff who can answer the customer's questions

Table 26: Knowledgeable staff who can answer the customer's questions

	N	Sum	Mean
Desired level	32	278	8.69
Adequate level	32	238	7.44
Perception	32	256	8.00

Question (u): Visually appealing facilities

Table 27: Visually appealing facilities

	N	Sum	Mean
Desired level	32	265	8.28
Adequate level	32	210	6.56
Perception	32	230	7.19